

Notice of Allowability

Application No.

10/601,706

Applicant(s)

FUKUSHIMA ET AL.

Examiner

Cynthia Britt

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/24/03.
2. ☒ The allowed claim(s) is/are 30-53, now renumbered 1-24.
3. ☒ The drawings filed on 24 June 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/450,590.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/24/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Eugene J. Lamare
Primary Examiner

DETAILED ACTION

Claims 1-29 are cancelled.

Claims 30-53 are allowed.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The present invention pertains to a data transmission method and apparatus including a specialized method of retransmitting error packets. The claimed invention (claim 30 as representative) recites features such as "a first step of performing transmission of the packets each having a sequence number;

a second step of receiving a retransmission request for a retransmission packet corresponding to any of the packets in which a transmission error has occurred; and

a third step of performing transmission of the retransmission packet having a first sequence number indicating a reproduction order and a second sequence number indicating a transmission order of the retransmission packet, on the basis of the retransmission request."

The prior arts of record (Ejzak, U. S. Patent No. 6,389,066 as an example) teach a system and method in which data is transmitted and if any previously transmitted RLP frames were transmitted in error and need to be retransmitted, the transmit RLP circuit then creates a queue of new RLP frames which are passed to the RLP frame and channel decision unit circuit for subsequent transmission. Additionally, the transmit RLP circuit also creates a queue of RLP frames for retransmission which are passed to the RLP frame and channel decision unit circuit, separately from the queue of the new RLP

frames, for subsequent retransmission. Each RLP data frame includes, as a minimum, layer 2 data from the buffer circuit, a sequence number uniquely identify the relative positioning of the data for reproduction in sequence at the receiver, and a cyclic redundancy code (CRC) to identify any frames in error. Additionally, each RLP frame has a fixed length determined by the adaptive channel coder and modulator. The prior arts however do not teach *a retransmission packet having a first sequence number indicating a reproduction order and a second sequence number indicating a transmission order of the retransmission packet, on the basis of the retransmission request*. As such, modification of the prior art of record can only be motivated by hindsight reasoning, or by changing the intended use and function of the prior art themselves. As such, it is not clear that one of ordinary skill in the art at the time of the invention would have made the necessary modifications to the prior arts of record to encompass the limitations set forth in the present application. Moreover, none of the prior arts of record, taken either alone or in combination, anticipate nor render obvious the claimed inventions. Hence, claims 30-53 are allowable over the prior arts of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 6,674,477 Yamaguchi et al.

This patent teaches a data processing method comprising the steps of: successively inputting classified time-series data and its priority information; and (1) when the information for classified time-series data is damaged, performing retransmission request processing in order to request retransmission of damaged data and (2) when classified time-series data is continuously or frequently lost, applying retransmission request processing only to high-priority data.

U. S. Patent No. 6,141,324 Abbott et al.

This patent teaches receiving feedback from the communication system indicating the amount of in-transit data present therein resulting from the transmitting of data, wherein the act of receiving feedback includes at least one of receiving acknowledgment and timing tokens appended to data packets via a telephone line, receiving acknowledgment and timing tokens identified by escape characters in a contiguous data stream via a telephone line, and receiving acknowledgment messages in accordance with a forward error correction and retransmission scheme via an internet-based TCP connection.

BEST AVAILABLE COPY

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Britt whose telephone number is 703-308-2391. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CB

Cynthia Britt
Examiner
Art Unit 2133

epuy J. Lamarre
Primary Examiner

BEST AVAILABLE COPY